

Glossary

112-Pound Rail Rail is generally described by the weight per yard. 112 lb. Rail is very light for main tracks. 132 lb. Rail is used for typical heavy tonnage, relatively high-speed main tracks.

Centralized Traffic Control Electronic means of controlling rail traffic through the use of controlled signals and switches.

Consist The cars (“Train Consist” or “Consist”) or the locomotives (“Engine Consist”) of a train.

Cross-Level Determination of level when checked across the rails, perpendicular to the track.

Distributed Power Additional locomotives located at some point in the train or behind the train, controlled remotely by the engineer in the lead locomotive.

Double Track Two main tracks, each generally assigned to opposite directions of travel similarly to a 2-lane roadway. Tracks may be used in the direction opposite to the assigned direction of travel under specifically controlled conditions and usually at reduced speed.

Grade Technically, the compacted and graded earthwork upon which track is constructed. However, in typical usage, the word usually means the tilt or steepness of the track up or down hills and mountains, as in “a two percent grade” (see definition of Percent).

Helper Extra locomotives added only for the portion of a trip that has very steep grades.

Intermodal When describing freight service, generally the transportation of containers or highway trailers on a train. Also applies to the transportation of automobiles and small trucks in specially designed rail cars.

Jointed Rail 39-foot or 72-foot lengths of rail joined by bolts and steel bars to form continuous rails.

Main Track Track used by trains for travel between stations. Other tracks may extend between stations but are not normally used for through travel.

Meet A train encountering a train moving in the opposite direction.

Multiple Track Two or more main tracks usually arranged to allow movement in either direction with equal facility, like the reversible lanes of a highway.

Occupancy Control System A traffic control system using a combination of Yard Limit operation and verbal instructions from the train dispatcher. OCS is generally limited to terminal areas where trains move at low to moderate speeds.

Pass A train overtaking a slower train.

Percent The unit of measurement for the tilt of railroad grades. One percent is a rise of one foot over a length of 100 feet (1:100).

Recovery Time Time added to a schedule, above the required travel time, to mitigate the effects of unpredictable events occurring during the course of a trip.

Restricted Limits A traffic control system generally allowing trains to use the main track and move as the way is seen to be clear. Similar, except in some details, to yard limit operation.

Ruling Grade The grade that determines the limitation of the pulling ability of locomotives on a route. The ruling grade is generally the steepest grade on the route, however there may be very short stretches of steeper grade that do not limit the performance of locomotives.

Siding A secondary track, usually adjacent to a main track, that allows a train to clear the main track to meet an opposing train or to be passed by a following train.

Signal An arrangement of lights, similar to a highway traffic signal, used to convey information to the locomotive engineer of a train.

Single Track A single main track used for the movement of trains in both directions.

Stringline A graphic representation of the movement of trains on a rail line. The stringline consists of an x-y coordinate system, one axis time and the other distance, with the movement of trains

described by connecting plotted points of the location at various times.

Superelevation “Banking” of curves

Switch A special track arrangement that allows a train to remain upon the same route or change route.

Track Geometry The curve, grade, and cross-level condition of the track.

Track Warrant Control A traffic control system allowing trains and maintenance work to occupy main tracks only on written authority from the train dispatcher. A very strict set of procedures is applied to train crews or maintenance workers obtaining the authority verbally from the dispatcher, writing on the prescribed form only as each word is spoken, and repeating the entire content to the dispatcher before it can be acted upon. Track Warrant Control imposes no speed limit of its own on train movement. The procedure required for the transmission of authority by radio or telephone is time-consuming.

Train Dispatcher The traffic controller for a railroad, sometimes also known as Rail Traffic Controller.

Yard Limit Operation A traffic control system generally allowing trains to use the main track and move as the way is seen to be clear. Trains must generally be prepared to stop within half the range of vision. Because of the great stopping distance of trains, yard limit operation generally requires movement at 20 mph or less.

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Appendices

- **Appendix A:** Preliminary Assessment of the East-West Routes
- **Appendix B:** Speed Analysis
- **Appendix C:** Amtrak Station Criteria
- **Appendix D:** Potential Station Locations